ABSTRACT OF THE DISCLOSURE

Disclosed is an inexpensive semiconductor device which has a built-in antenna capable of efficiently radiating low-power microwaves and has excellent productivity. An IC chip is mounted on a lead frame on which a chip base for mounting an IC chip, an inverted-F antenna and a ground electrode are integrated and is molded with an encapsulating resin. At this time, a gap portion, which is formed between the open end of the resonance portion of the inverted-F antenna and the distal end portion of the ground electrode, is not molded with the encapsulating resin and is left open as a window. This can permit electric waves to be efficiently irradiated from the open end of the antenna exposed to air through the window. As this semiconductor device has nearly the same structure as that of an ordinary semiconductor device, it is excellent in productivity and can be fabricated at a low cost.